

1. A method of concentrating a gaseous substance, the method comprising the steps of:
 - 5 isolating a trap in which an analyte to be concentrated has been absorbed from a carrier gas passed through the trap;
reducing the pressure within the trap to a first pressure
desorbing the analyte from the trap; and
diffusing the analyte released from the trap into an analyser operating at a second
10 pressure lower than the first pressure.
 2. A method according to claim 1, further comprising the step of passing the carrier gas and the analyte through the trap.
 - 15 3. A method according to claim 2, wherein the carrier gas and the analyte are at a third pressure which is greater than the first pressure.
 4. A method according to claim 1, further comprising the step of passing the carrier gas and the analyte through a selectively permeable membrane prior to passing them into
20 the trap.
 5. A method according to claim 1, further comprising the step of passing the analyte through a selectively permeable membrane after the desorbing step.
 - 25 6. A method according to claim 1, further comprising the step of passing the analyte through a non-selective flow restrictor after the desorb step.
 7. A method according to claim 1, further comprising the step of flushing the trap with a dry gas prior to reducing the pressure in the trap.
 - 30 8. A method according to claim 1, wherein the desorption of the analyte is effected by raising the temperature of the trap.
 9. A device for concentrating and analysing a carrier gas, the device comprising:
35 a trap in which an analyte can be retained;
means for desorbing the analyte from the trap;
a body into which the analyte passes from the trap;

a vacuum pump for reducing the pressure in the trap and/or in the body; and
an analyser into which the concentrated analyte is passed for analysis.

10. A device according to claim 9, wherein the means for desorbing the analyte is a
5 heater.

11. A device according to either claim 9 or claim 10, wherein the trap includes a valve
means at its inlet, through which the carrier gas and analyte are passed.

10 12. A device according to claim 9, wherein the analyser is a mass spectrometer.

13. A device according to claim 9, further comprising an analyser valve between the
body and the analyser.

15 14. A device according to claim 9, further comprising a pump valve between the body
and the vacuum pump.

15. A device according to claim 9, further comprising a flow restrictor between the
body and the analyser.

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16. A device according to claim 15, wherein the flow restrictor is a selectively
permeable membrane.

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